

Laboratory Report Number: L12010651

Mark Lyon
Environmental Waste Solutions
2440 Louisiana Blvd
Albuquerque, NM 87110

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact:
Stephanie Mossburg – Team Chemist/Data Specialist
(740) 373-4071
Stephanie.Mossburg@microbac.com

I certify that all test results meet all of the requirements of the DoD QSM and other applicable contract terms and conditions. Any exceptions are attached to this cover page or addressed in the method narratives presented in the report. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories, DoD ELAP certification number 2936.01. The reported results are related only to the samples analyzed as received.

This report was certified on February 08 2012



David Vandenberg – Managing Director

State of Origin: NM
Accrediting Authority: N/A ID:N/A
QAPP: DOD Ver 4.1



Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

There were no discrepancies.

Discrepancy	Resolution
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Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #
0014666	H	3.0		1ZE4F1930349725964

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	Yes
2	Were custody seals intact?	Yes
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	Yes
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	Yes
12	Were VOA samples free of headspace (less than 6mm)?	NA

Lab Report #: L12010651

Lab Project #: 3005.011

Project Name: White Sands MR

Lab Contact: Stephanie Mossburg

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
MPL-16-0112-1	L12010651-01	01/24/2012 14:20	01/25/2012 10:34
MPL-16-0112-MS	L12010651-02	01/24/2012 14:20	01/25/2012 10:34
MPL-16-0112-MSD	L12010651-03	01/24/2012 14:20	01/25/2012 10:34



Login Number: L12010651
Department: Conventionals
Analyst: Dorothy Payne

METHOD

Analysis SW846 9040C,9045D/EPA 150.1/SM4500-H B (pH)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 41703

Approved By: Deanna Hesson

A handwritten signature in black ink, appearing to read "Deanna Hesson", is written over the printed name.



Login Number: L12010651
Department: Metals
Analyst: Sheri Pfalzgraf

METHOD

Preparation: SW-846 3005
Preparation: SW-846 3005A
Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.
Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.
Alternate Source Standards: All acceptance criteria were met.
Interference Check Standards: All acceptance criteria were met.
Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: WG388026 - The closing continuing calibration blank that bracketed the batch post-digestion spike yielded a calcium result of -0.115 mg/L which exceeds the absolute value of the limit of detection. However, since the CCB did not bracket any client samples, no further action was taken.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.
Laboratory Control Sample: All acceptance criteria were met.
Serial Dilution/Post Digestion Spikes: WG388026 - All acceptance criteria were met.
Serial Dilution/Post Digestion Spikes: All acceptance criteria were met.
Matrix Spikes: WG388026 - Sample 01 was chosen by the client for MS/MSD analysis. Samples 02(MS) and 03(MSD) yielded noncompliant recoveries for calcium.
Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 41502
Approved By: Maren Beery

Maren Beery



Login Number: L12010651
Department: Metals
Analyst: Erin Long

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG388019 - All acceptance criteria were met.

Matrix Spikes: WG388019 - Sample 01 was chosen by the client for MS/MSD analysis. Samples 02(MS) and 03(MSD) met all acceptance criteria.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 41438

Approved By: Maren Beery

Maren Beery



Login Number: L12010651
Department: Metals - AA
Analyst: Sheri Pfalzgraf

METHOD

Preparation: SW-846 7470

Preparation: SW-846 7471(solid)/SW-846 7470(water)

Analysis: SW-846 7470

Analysis: SW-846 7471(solid)/SW-846 7470(water)

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG388140 - All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: All acceptance criteria were met.

Matrix Spikes: WG388140 - Sample 01 was chosen by the client for MS/MSD analysis. Samples 02(MS) and 03(MSD) yielded noncompliant recoveries and a noncompliant RPD for mercury.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

Narrative ID: 41413

Approved By: Maren Beery

Maren Beery



Login Number: L12010651
Department: General Chromatography
Analyst: Jeremy Kinney

METHOD

Analysis SW-846 9056/300.0

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: Recoveries out of range were observed for the following analytes: Chloride. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: Fractions -01, -02, and -03 were analyzed at dilutions due to Cl concentrations greater than the ICAL. Fractions -01, -02, and -03 were analyzed for fluoride via method SM4500-F C (Potentiometric Determination) due to greatly reduced fluoride recoveries via IC analysis. Fluoride recoveries fail due to high concentrations of metal cations found in sample matrices. Efforts are made to prevent the precipitation of these cations in the guard and analytical columns and suppressor but are not completely effective. Even with the preventative efforts to eliminate these interferences the instrument was unable to analyze F at greater than 90% recovery.

Surrogates: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the

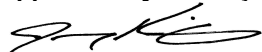
system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor will be required.

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Narrative ID: 41524

Approved By: Jeremy Kinney





Login Number: L12010651
Department: Conventional
Analyst: Deanna Hesson

METHOD

Analysis EPA 310.2 (Alkalinity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: The blank result was greater than the absolute value of the LOD.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: Recoveries out of range were observed for the following analytes: Alkalinity, Bicarbonate (as CaCO_3), Alkalinity, Carbonate (as CaCO_3), Alkalinity, Total (as CaCO_3). Please see the applicable QC report for a detailed presentation of the failures.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 41625

Approved By: Deanna Hesson

A handwritten signature in cursive script, appearing to read "Deanna Hesson", written in black ink.



Login Number: L12010651
Department: Conventional
Analyst: Jeremy Kinney

METHOD

Analysis SW846 9014/9010C/SM4500-CN-C,E-20th (Cyanide)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: Cyanide-Amenable is the difference between the total cyanide and the treated cyanide. The LCS is analyzed to show that all of the cyanide is amenable (the treated portion is ND). The LCS forms cannot calculate cyanide amenable. The LCS is acceptable.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 41407

Approved By: Deanna Hesson

A handwritten signature in black ink, appearing to read "Deanna Hesson", is written over a horizontal line.



Login Number: L12010651
Department: Conventional
Analyst: Dorothy Payne

METHOD

Analysis EPA 120.1/SM2510 B (Conductivity)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: Recoveries out of range were observed for the following analytes: Conductivity. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 41702

Approved By: Deanna Hesson

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Login Number: L12010651
Department: Conventional
Analyst: Deanna Hesson

METHOD

Analysis SM4500-F-C (Fluoride)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: The samples were analyzed by SM4500-F C due to instrument failure for Method 300.

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Narrative ID: 41709

Approved By: Deanna Hesson

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Login Number: L12010651
Department: Conventional
Analyst: Deanna Hesson

METHOD

Analysis EPA 350.1/SM4500-NH3 B(NH3)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: Recoveries out of range were observed for the following analytes: Nitrogen, Ammonia. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 41704

Approved By: Deanna Hesson

A handwritten signature in black ink, appearing to read "Deanna Hesson", is written over the printed name.



Login Number: L12010651
Department: Conventional
Analyst: Deanna Hesson

METHOD

Analysis EPA 353.2/SM4500-NO3 F (Nitrate)

HOLDING TIMES

Sample Analysis: Nitrate is reported as the difference of nitrate-nitrite (28 day hold) and nitrite (48 hour hold). Both analysis were analyzed within the appropriate hold time. The nitrate hold time is within compliance.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 41705

Approved By: Deanna Hesson

A handwritten signature in black ink, appearing to read "Deanna Hesson", is written over the printed name.



Login Number: L12010651
Department: Conventional
Analyst: Holly Reed

METHOD

Analysis EPA 365.2/SM4500-P E (Orthophosphate)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 41706

Approved By: Deanna Hesson

A handwritten signature in black ink, appearing to read "Deanna Hesson", is written over the printed name.



Login Number: L12010651
Department: Conventional
Analyst: Holly Reed

METHOD

Analysis EPA 160.1/SM2540 C(Total Dissolved Solids)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 41710

Approved By: Deanna Hesson

A handwritten signature in black ink, appearing to read "Deanna Hesson", is written over the printed name.



Login Number: L12010651
Department: Conventionals
Analyst: Deanna Hesson

METHOD

Analysis Water: EPA 415.1/SM5310C/SW846 9060 (Total Organic Carbon)
Soil: Lloyd-Khan Methodology

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: Recoveries out of range were observed for the following analytes: Total Organic Carbon. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 41707

Approved By: Deanna Hesson

A handwritten signature in cursive script, appearing to read "Deanna Hesson", written in dark ink.



Login Number: L12010651
Department: Conventional
Analyst: Holly Reed

METHOD

Analysis EPA 160.2/SM2540 D (Total Suspended Solids)

HOLDING TIMES

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Duplicates: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Samples: All acceptance criteria were met.

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Narrative ID: 41708

Approved By: Deanna Hesson

A handwritten signature in black ink, appearing to read "Deanna Hesson", is written over the printed name.

Certificate of Analysis

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MPL-16-0112-1	Prep Method: 3005A	Prep Date: 01/26/2012 06:53
Matrix: Water	Analytical Method: 6010B	Cal Date: 01/30/2012 12:30
Workgroup #: WG388026	Analyst: SLP	Run Date: 01/30/2012 15:48
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: P2.013012.154834
Sample Tag: 02	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7		U	0.00200	0.00100
Calcium, Total	7440-70-2	55.1		0.200	0.100
Magnesium, Total	7439-95-4	8.31		0.500	0.250
Manganese, Total	7439-96-5		U	0.0100	0.00500
Potassium, Total	7440-09-7	2.93		1.00	0.500
Sodium, Total	7440-23-5	25.2		0.500	0.250
Tin, Total	7440-31-5		U	0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500
Zinc, Total	7440-66-6		U	0.0200	0.0100
U	Analyte was not detected. The concentration is below the reported LOD.				

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: ELAN-ICP
Client ID: MPL-16-0112-1	Prep Method: 3015	Prep Date: 01/26/2012 06:32
Matrix: Water	Analytical Method: 6020	Cal Date: 01/28/2012 10:56
Workgroup #: WG388019	Analyst: EDL	Run Date: 01/28/2012 12:50
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: EL.012812.125020
Sample Tag: 02	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0		U	0.00100	0.000500
Arsenic, Total	7440-38-2	0.00280		0.00100	0.000500
Barium, Total	7440-39-3	0.0653		0.00300	0.00150
Cadmium, Total	7440-43-9		U	0.000600	0.000300
Chromium, Total	7440-47-3	0.00227		0.00200	0.00100
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Copper, Total	7440-50-8		U	0.00200	0.00100
Lead, Total	7439-92-1		U	0.00100	0.000500
Nickel, Total	7440-02-0	0.00218	J	0.00400	0.00200
Selenium, Total	7782-49-2	0.00998		0.00100	0.000500
Silver, Total	7440-22-4		U	0.00100	0.000500
Thallium, Total	7440-28-0		U	0.000200	0.000100
J	Estimated value ; the analyte concentration was less than the LOQ.				
U	Analyte was not detected. The concentration is below the reported LOD.				

Certificate of Analysis

Sample #: L12010651-01		PrePrep Method: N/A		Instrument: HYDRA		
Client ID: MPL-16-0112-1		Prep Method: 7470A		Prep Date: 01/27/2012 08:27		
Matrix: Water		Analytical Method: 7470A		Cal Date: 01/27/2012 14:02		
Workgroup #: WG388140		Analyst: SLP		Run Date: 01/27/2012 14:25		
Collect Date: 01/24/2012 14:20		Dilution: 1		File ID: HY.012712.142556		
Sample Tag: 01		Units: mg/L				
Analyte		CAS #	Result	Qual	LOQ	LOD
Mercury		7439-97-6		U	0.000200	0.000100
U	Analyte was not detected. The concentration is below the reported LOD.					

Sample #: L12010651-01		PrePrep Method: N/A		Instrument: IC1		
Client ID: MPL-16-0112-1		Prep Method: 300.0		Prep Date: 01/26/2012 15:17		
Matrix: Water		Analytical Method: 300.0		Cal Date: 09/14/2011 11:03		
Workgroup #: WG387948		Analyst: JBK		Run Date: 01/26/2012 17:37		
Collect Date: 01/24/2012 14:20		Dilution: 4		File ID: I10126121737.11		
Sample Tag: DL01		Units: mg/L				
Analyte		CAS #	Result	Qual	LOQ	LOD
Chloride		16887-00-6	41.0		0.800	0.400
Sulfate		14808-79-8	64.7		4.00	2.00

Sample #: L12010651-01	PrePrep Method: N/A		Instrument: ORION-4STAR		
Client ID: MPL-16-0112-1	Prep Method: 9040C		Prep Date: N/A		
Matrix: Water	Analytical Method: 9040C		Cal Date:		
Workgroup #: WG387893	Analyst: DLP		Run Date: 01/25/2012 14:15		
Collect Date: 01/24/2012 14:20	Dilution: 1		File ID: OS12012612101001		
Sample Tag:	Units: UNITS				
Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	7.64		0.000	0.000

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: SMARTCHEM			
Client ID: MPL-16-0112-1	Prep Method: 310.2	Prep Date: N/A			
Matrix: Water	Analytical Method: 310.2	Cal Date: 01/31/2012 08:52			
Workgroup #: WG388329	Analyst: DIH	Run Date: 01/31/2012 08:56			
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: SC120131001.014			
Sample Tag: 01	Units: mg/L				
Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Carbonate (as CaCO3)			U	20.0	10.0

Certificate of Analysis

U	Analyte was not detected. The concentration is below the reported LOD.
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Sample #: L12010651-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-1	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 01/31/2012 08:52
Workgroup #: WG388329	Analyst: DIH	Run Date: 01/31/2012 08:56
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: SC120131001.014
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)		84.7		20.0	10.0

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-1	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 01/31/2012 08:52
Workgroup #: WG388329	Analyst: DIH	Run Date: 01/31/2012 08:56
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: SC120131001.014
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Bicarbonate (as CaCO3)		84.7		20.0	10.0

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: UV-120-1V
Client ID: MPL-16-0112-1	Prep Method: SM4500-CN-C,G	Prep Date: N/A
Matrix: Water	Analytical Method: SM4500-CN-C,G	Cal Date: 01/27/2012 11:10
Workgroup #: WG388028	Analyst: JBK	Run Date: 01/27/2012 11:50
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: 1V.1201271150-11
Sample Tag: CN-A	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5	0.0406		0.0100	0.00500

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: UV-120-1V
Client ID: MPL-16-0112-1	Prep Method: SM4500-CN-I	Prep Date: N/A
Matrix: Water	Analytical Method: SM4500-CN-I	Cal Date: 01/30/2012 15:15
Workgroup #: WG388302	Analyst: DLP	Run Date: 01/30/2012 18:00
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: 1V.1201301800-09
Sample Tag: D01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.0139		0.0100	0.00500

Certificate of Analysis

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: UV-120-1V
Client ID: MPL-16-0112-1	Prep Method: 9014-9010C	Prep Date: N/A
Matrix: Water	Analytical Method: 9014-9010C	Cal Date: 01/27/2012 11:10
Workgroup #: WG388027	Analyst: JBK	Run Date: 01/27/2012 11:30
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: 1V.1201271130-05
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide	57-12-5	0.105		0.0100	0.00500

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: YSI-32
Client ID: MPL-16-0112-1	Prep Method: 120.1	Prep Date: N/A
Matrix: Water	Analytical Method: 120.1	Cal Date:
Workgroup #: WG388141	Analyst: DLP	Run Date: 01/27/2012 11:20
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: 32.1201271120-07
Sample Tag:	Units: umhos/cm	

Analyte	CAS #	Result	Qual	LOQ	LOD
Conductivity		494		1.00	0.500

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: ORION-710A1
Client ID: MPL-16-0112-1	Prep Method: SM4500-F-C	Prep Date: N/A
Matrix: Water	Analytical Method: SM4500-F-C	Cal Date:
Workgroup #: WG388474	Analyst: DIH	Run Date: 02/01/2012 10:45
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: O112020113425401
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Fluoride	16984-48-8	0.237		0.100	0.0500

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-1	Prep Method: 350.1	Prep Date: N/A
Matrix: Water	Analytical Method: 350.1	Cal Date: 01/27/2012 11:48
Workgroup #: WG388059	Analyst: DIH	Run Date: 01/27/2012 12:08
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: SC120127002.029
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7	0.107		0.100	0.0500

Certificate of Analysis

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-1	Prep Method: 353.2	Prep Date: N/A
Matrix: Water	Analytical Method: 353.2	Cal Date: 01/30/2012 09:15
Workgroup #: WG388287	Analyst: DIH	Run Date: 01/30/2012 14:40
Collect Date: 01/24/2012 14:20	Dilution: 4	File ID: SC12013112371101
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		4.43		0.200	0.100

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: UV-120-1V
Client ID: MPL-16-0112-1	Prep Method: SM4500-P-E-20th	Prep Date: N/A
Matrix: Water	Analytical Method: SM4500-P-E-20th	Cal Date: 12/21/2011 14:35
Workgroup #: WG387929	Analyst: HJR	Run Date: 01/25/2012 12:45
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: 1V.1201251245-08
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2		U	0.0500	0.0250
U	Analyte was not detected. The concentration is below the reported LOD.				

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: OVEN
Client ID: MPL-16-0112-1	Prep Method: 160.1/SM2540C	Prep Date: N/A
Matrix: Water	Analytical Method: 160.1	Cal Date:
Workgroup #: WG388025	Analyst: HJR	Run Date: 01/27/2012 13:33
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: EN.1201271333-04
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		302		20.0	10.0

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: TOC-VWP
Client ID: MPL-16-0112-1	Prep Method: 415.1	Prep Date: N/A
Matrix: Water	Analytical Method: 415.1	Cal Date: 12/06/2011 09:40
Workgroup #: WG388050	Analyst: DIH	Run Date: 01/26/2012 22:06
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: TC01262012.019
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon		1.06		1.00	0.500

Certificate of Analysis

Sample #: L12010651-01	PrePrep Method: N/A	Instrument: OVEN
Client ID: MPL-16-0112-1	Prep Method: 160.2/SM2540D	Prep Date: N/A
Matrix: Water	Analytical Method: 160.2	Cal Date:
Workgroup #: WG388022	Analyst: HJR	Run Date: 01/26/2012 14:57
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: EN.1201261457-16
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids			U	5.00	2.50

Sample #: L12010651-02	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MPL-16-0112-MS	Prep Method: 3005A	Prep Date: 01/26/2012 06:53
Matrix: Water	Analytical Method: 6010B	Cal Date: 01/30/2012 12:30
Workgroup #: WG388026	Analyst: SLP	Run Date: 01/30/2012 15:55
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: P2.013012.155524
Sample Tag: 02	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7	0.0239		0.00200	0.00100
Calcium, Total	7440-70-2	61.8		0.200	0.100
Magnesium, Total	7439-95-4	13.3		0.500	0.250
Manganese, Total	7439-96-5	0.246		0.0100	0.00500
Potassium, Total	7440-09-7	26.1		1.00	0.500
Sodium, Total	7440-23-5	49.8		0.500	0.250
Tin, Total	7440-31-5	0.552		0.500	0.250
Vanadium, Total	7440-62-2	0.498		0.0100	0.00500
Zinc, Total	7440-66-6	0.485		0.0200	0.0100

Sample #: L12010651-02	PrePrep Method: N/A	Instrument: ELAN-ICP
Client ID: MPL-16-0112-MS	Prep Method: 3015	Prep Date: 01/26/2012 06:32
Matrix: Water	Analytical Method: 6020	Cal Date: 01/28/2012 10:56
Workgroup #: WG388019	Analyst: EDL	Run Date: 01/28/2012 12:58
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: EL.012812.125807
Sample Tag: 02	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0	0.0641		0.00100	0.000500
Arsenic, Total	7440-38-2	0.0627		0.00100	0.000500
Barium, Total	7440-39-3	0.125		0.00300	0.00150
Cadmium, Total	7440-43-9	0.0626		0.000600	0.000300
Chromium, Total	7440-47-3	0.0638		0.00200	0.00100
Cobalt, Total	7440-48-4	0.0625		0.00100	0.000500

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Copper, Total	7440-50-8	0.0641		0.00200	0.00100
Lead, Total	7439-92-1	0.0646		0.00100	0.000500
Nickel, Total	7440-02-0	0.0642		0.00400	0.00200
Selenium, Total	7782-49-2	0.0639		0.00100	0.000500
Silver, Total	7440-22-4	0.0564		0.00100	0.000500
Thallium, Total	7440-28-0	0.0630		0.000200	0.000100

Sample #: L12010651-02

PrePrep Method: N/A

Instrument: HYDRA

Client ID: MPL-16-0112-MS

Prep Method: 7470A

Prep Date: 01/27/2012 08:27

Matrix: Water

Analytical Method: 7470A

Cal Date: 01/27/2012 14:02

Workgroup #: WG388140

Analyst: SLP

Run Date: 01/27/2012 14:29

Collect Date: 01/24/2012 14:20

Dilution: 1

File ID: HY.012712.142956

Sample Tag: 01

Units: mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6	0.00340		0.000222	0.000111

Sample #: L12010651-02

PrePrep Method: N/A

Instrument: IC1

Client ID: MPL-16-0112-MS

Prep Method: 300.0

Prep Date: 01/26/2012 15:17

Matrix: Water

Analytical Method: 300.0

Cal Date: 09/14/2011 11:03

Workgroup #: WG387948

Analyst: JBK

Run Date: 01/26/2012 18:11

Collect Date: 01/24/2012 14:20

Dilution: 4

File ID: I10126121811.13

Sample Tag: DL01

Units: mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	47.9		0.800	0.400
Sulfate	14808-79-8	105		4.00	2.00

Sample #: L12010651-02

PrePrep Method: N/A

Instrument: ORION-4STAR

Client ID: MPL-16-0112-MS

Prep Method: 9040C

Prep Date: N/A

Matrix: Water

Analytical Method: 9040C

Cal Date:

Workgroup #: WG387893

Analyst: DLP

Run Date: 01/25/2012 14:17

Collect Date: 01/24/2012 14:20

Dilution: 1

File ID: OS12012612101401

Sample Tag:

Units: UNITS

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	7.63		0.000	0.000

Certificate of Analysis

Sample #: L12010651-02	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-MS	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 01/31/2012 08:52
Workgroup #: WG388329	Analyst: DIH	Run Date: 01/31/2012 08:57
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: SC120131001.016
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Carbonate (as CaCO3)			U	20.0	10.0
U	Analyte was not detected. The concentration is below the reported LOD.				

Sample #: L12010651-02	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-MS	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 01/31/2012 08:52
Workgroup #: WG388329	Analyst: DIH	Run Date: 01/31/2012 08:57
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: SC120131001.016
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)		157		20.0	10.0

Sample #: L12010651-02	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-MS	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 01/31/2012 08:52
Workgroup #: WG388329	Analyst: DIH	Run Date: 01/31/2012 08:57
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: SC120131001.016
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Bicarbonate (as CaCO3)		157		20.0	10.0

Sample #: L12010651-02	PrePrep Method: N/A	Instrument: UV-120-1V
Client ID: MPL-16-0112-MS	Prep Method: SM4500-CN-C,G	Prep Date: N/A
Matrix: Water	Analytical Method: SM4500-CN-C,G	Cal Date: 01/27/2012 11:10
Workgroup #: WG388028	Analyst: JBK	Run Date: 01/27/2012 11:50
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: 1V.1201271150-13
Sample Tag: CN-A	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5	0.0419		0.0100	0.00500

Certificate of Analysis

Sample #: L12010651-02		PrePrep Method: N/A		Instrument: UV-120-1V		
Client ID: MPL-16-0112-MS		Prep Method: SM4500-CN-I		Prep Date: N/A		
Matrix: Water		Analytical Method: SM4500-CN-I		Cal Date: 01/30/2012 15:00		
Workgroup #: WG388302		Analyst: DLP		Run Date: 01/30/2012 18:00		
Collect Date: 01/24/2012 14:20		Dilution: 1		File ID: 1V.1201301800-10		
Sample Tag: D01		Units: mg/L				
Analyte		CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable		57-12-5	0.221		0.0100	0.00500

Sample #: L12010651-02		PrePrep Method: N/A		Instrument: UV-120-1V		
Client ID: MPL-16-0112-MS		Prep Method: 9014-9010C		Prep Date: N/A		
Matrix: Water		Analytical Method: 9014-9010C		Cal Date: 01/27/2012 11:10		
Workgroup #: WG388027		Analyst: JBK		Run Date: 01/27/2012 11:30		
Collect Date: 01/24/2012 14:20		Dilution: 1		File ID: 1V.1201271130-07		
Sample Tag:		Units: mg/L				
Analyte		CAS #	Result	Qual	LOQ	LOD
Cyanide		57-12-5	0.307		0.0100	0.00500

Sample #: L12010651-02		PrePrep Method: N/A		Instrument: YSI-32		
Client ID: MPL-16-0112-MS		Prep Method: 120.1		Prep Date: N/A		
Matrix: Water		Analytical Method: 120.1		Cal Date:		
Workgroup #: WG388141		Analyst: DLP		Run Date: 01/27/2012 11:20		
Collect Date: 01/24/2012 14:20		Dilution: 1		File ID: 32.1201271120-08		
Sample Tag:		Units: umhos/cm				
Analyte		CAS #	Result	Qual	LOQ	LOD
Conductivity			497		1.00	0.500

Sample #: L12010651-02		PrePrep Method: N/A		Instrument: ORION-710A1		
Client ID: MPL-16-0112-MS		Prep Method: SM4500-F-C		Prep Date: N/A		
Matrix: Water		Analytical Method: SM4500-F-C		Cal Date:		
Workgroup #: WG388474		Analyst: DIH		Run Date: 02/01/2012 10:45		
Collect Date: 01/24/2012 14:20		Dilution: 1		File ID: O112020113425701		
Sample Tag:		Units: mg/L				
Analyte		CAS #	Result	Qual	LOQ	LOD
Fluoride		16984-48-8	0.620		0.100	0.0500

Certificate of Analysis

Sample #: L12010651-02		PrePrep Method: N/A		Instrument: SMARTCHEM		
Client ID: MPL-16-0112-MS		Prep Method: 350.1		Prep Date: N/A		
Matrix: Water		Analytical Method: 350.1		Cal Date: 01/27/2012 11:48		
Workgroup #: WG388059		Analyst: DIH		Run Date: 01/27/2012 12:11		
Collect Date: 01/24/2012 14:20		Dilution: 1		File ID: SC120127002.032		
Sample Tag: 01		Units: mg/L				
Analyte		CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia		7664-41-7	1.03		0.100	0.0500

Sample #: L12010651-02	PrePrep Method: N/A	Instrument: SMARTCHEM			
Client ID: MPL-16-0112-MS	Prep Method: 353.2	Prep Date: N/A			
Matrix: Water	Analytical Method: 353.2	Cal Date: 01/30/2012 09:15			
Workgroup #: WG388287	Analyst: DIH	Run Date: 01/30/2012 14:40			
Collect Date: 01/24/2012 14:20	Dilution: 4	File ID: SC12013112371601			
Sample Tag:	Units: mg/L				
Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		5.15		0.200	0.100

Sample #: L12010651-02	PrePrep Method: N/A		Instrument: UV-120-1V		
Client ID: MPL-16-0112-MS	Prep Method: SM4500-P-E-20th		Prep Date: N/A		
Matrix: Water	Analytical Method: SM4500-P-E-20th		Cal Date: 12/21/2011 14:35		
Workgroup #: WG387929	Analyst: HJR		Run Date: 01/25/2012 12:45		
Collect Date: 01/24/2012 14:20	Dilution: 1		File ID: 1V.1201251245-10		
Sample Tag:	Units: mg/L				
Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2	0.404		0.0500	0.0250

Sample #: L12010651-02	PrePrep Method: N/A	Instrument: OVEN			
Client ID: MPL-16-0112-MS	Prep Method: 160.1/SM2540C	Prep Date: N/A			
Matrix: Water	Analytical Method: 160.1	Cal Date:			
Workgroup #: WG388025	Analyst: HJR	Run Date: 01/27/2012 13:33			
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: EN.1201271333-05			
Sample Tag:	Units: mg/L				
Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		796		20.0	10.0

Certificate of Analysis

Sample #: L12010651-02	PrePrep Method: N/A	Instrument: TOC-VWP
Client ID: MPL-16-0112-MS	Prep Method: 415.1	Prep Date: N/A
Matrix: Water	Analytical Method: 415.1	Cal Date: 12/06/2011 09:40
Workgroup #: WG388050	Analyst: DIH	Run Date: 01/26/2012 22:28
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: TC01262012.020
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon		9.36		1.00	0.500

Sample #: L12010651-02	PrePrep Method: N/A	Instrument: OVEN
Client ID: MPL-16-0112-MS	Prep Method: 160.2/SM2540D	Prep Date: N/A
Matrix: Water	Analytical Method: 160.2	Cal Date:
Workgroup #: WG388022	Analyst: HJR	Run Date: 01/26/2012 14:57
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: EN.1201261457-17
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids		30.5		5.00	2.50

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: PE-ICP2
Client ID: MPL-16-0112-MSD	Prep Method: 3005A	Prep Date: 01/26/2012 06:53
Matrix: Water	Analytical Method: 6010B	Cal Date: 01/30/2012 12:30
Workgroup #: WG388026	Analyst: SLP	Run Date: 01/30/2012 16:02
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: P2.013012.160218
Sample Tag: 02	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Beryllium, Total	7440-41-7	0.0245		0.00200	0.00100
Calcium, Total	7440-70-2	63.5		0.200	0.100
Magnesium, Total	7439-95-4	13.8		0.500	0.250
Manganese, Total	7439-96-5	0.254		0.0100	0.00500
Potassium, Total	7440-09-7	27.1		1.00	0.500
Sodium, Total	7440-23-5	51.4		0.500	0.250
Tin, Total	7440-31-5	0.560		0.500	0.250
Vanadium, Total	7440-62-2	0.514		0.0100	0.00500
Zinc, Total	7440-66-6	0.502		0.0200	0.0100

Certificate of Analysis

Sample #: L12010651-03 **PrePrep Method:** N/A **Instrument:** ELAN-ICP
Client ID: MPL-16-0112-MSD **Prep Method:** 3015 **Prep Date:** 01/26/2012 06:32
Matrix: Water **Analytical Method:** 6020 **Cal Date:** 01/28/2012 10:56
Workgroup #: WG388019 **Analyst:** EDL **Run Date:** 01/28/2012 13:11
Collect Date: 01/24/2012 14:20 **Dilution:** 1 **File ID:** EL.012812.131104
Sample Tag: 02 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Antimony, Total	7440-36-0	0.0647		0.00100	0.000500
Arsenic, Total	7440-38-2	0.0635		0.00100	0.000500
Barium, Total	7440-39-3	0.128		0.00300	0.00150
Cadmium, Total	7440-43-9	0.0613		0.000600	0.000300
Chromium, Total	7440-47-3	0.0649		0.00200	0.00100
Cobalt, Total	7440-48-4	0.0629		0.00100	0.000500
Copper, Total	7440-50-8	0.0649		0.00200	0.00100
Lead, Total	7439-92-1	0.0636		0.00100	0.000500
Nickel, Total	7440-02-0	0.0640		0.00400	0.00200
Selenium, Total	7782-49-2	0.0660		0.00100	0.000500
Silver, Total	7440-22-4	0.0597		0.00100	0.000500
Thallium, Total	7440-28-0	0.0618		0.000200	0.000100

Sample #: L12010651-03 **PrePrep Method:** N/A **Instrument:** HYDRA
Client ID: MPL-16-0112-MSD **Prep Method:** 7470A **Prep Date:** 01/27/2012 08:27
Matrix: Water **Analytical Method:** 7470A **Cal Date:** 01/27/2012 14:02
Workgroup #: WG388140 **Analyst:** SLP **Run Date:** 01/27/2012 14:31
Collect Date: 01/24/2012 14:20 **Dilution:** 1 **File ID:** HY.012712.143151
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Mercury	7439-97-6	0.00207		0.000222	0.000111

Sample #: L12010651-03 **PrePrep Method:** N/A **Instrument:** IC1
Client ID: MPL-16-0112-MSD **Prep Method:** 300.0 **Prep Date:** 01/26/2012 15:17
Matrix: Water **Analytical Method:** 300.0 **Cal Date:** 09/14/2011 11:03
Workgroup #: WG387948 **Analyst:** JBK **Run Date:** 01/26/2012 18:29
Collect Date: 01/24/2012 14:20 **Dilution:** 4 **File ID:** I10126121829.14
Sample Tag: DL01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Chloride	16887-00-6	48.0		0.800	0.400
Sulfate	14808-79-8	105		4.00	2.00

Certificate of Analysis

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: ORION-4STAR
Client ID: MPL-16-0112-MSD	Prep Method: 9040C	Prep Date: N/A
Matrix: Water	Analytical Method: 9040C	Cal Date:
Workgroup #: WG387893	Analyst: DLP	Run Date: 01/25/2012 14:21
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: OS12012612101801
Sample Tag:	Units: UNITS	

Analyte	CAS #	Result	Qual	LOQ	LOD
Corrosivity pH	10-29-7	7.67		0.000	0.000

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-MSD	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 01/31/2012 08:52
Workgroup #: WG388329	Analyst: DIH	Run Date: 01/31/2012 08:58
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: SC120131001.017
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Bicarbonate (as CaCO3)		156		20.0	10.0

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-MSD	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 01/31/2012 08:52
Workgroup #: WG388329	Analyst: DIH	Run Date: 01/31/2012 08:58
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: SC120131001.017
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Carbonate (as CaCO3)			U	20.0	10.0

U Analyte was not detected. The concentration is below the reported LOD.

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-MSD	Prep Method: 310.2	Prep Date: N/A
Matrix: Water	Analytical Method: 310.2	Cal Date: 01/31/2012 08:52
Workgroup #: WG388329	Analyst: DIH	Run Date: 01/31/2012 08:58
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: SC120131001.017
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Alkalinity, Total (as CaCO3)		156		20.0	10.0

Certificate of Analysis

Sample #: L12010651-03		PrePrep Method: N/A		Instrument: UV-120-1V		
Client ID: MPL-16-0112-MSD		Prep Method: 9014-9010C		Prep Date: N/A		
Matrix: Water		Analytical Method: 9014-9010C		Cal Date: 01/27/2012 11:10		
Workgroup #: WG388027		Analyst: JBK		Run Date: 01/27/2012 11:30		
Collect Date: 01/24/2012 14:20		Dilution: 1		File ID: 1V.1201271130-08		
Sample Tag:		Units: mg/L				
Analyte		CAS #	Result	Qual	LOQ	LOD
Cyanide		57-12-5	0.307		0.0100	0.00500

Sample #: L12010651-03	PrePrep Method: N/A		Instrument: UV-120-1V		
Client ID: MPL-16-0112-MSD	Prep Method: SM4500-CN-C,G		Prep Date: N/A		
Matrix: Water	Analytical Method: SM4500-CN-C,G		Cal Date: 01/27/2012 11:10		
Workgroup #: WG388028	Analyst: JBK		Run Date: 01/27/2012 11:50		
Collect Date: 01/24/2012 14:20	Dilution: 1		File ID: 1V.1201271150-14		
Sample Tag: CN-A	Units: mg/L				
Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Amenable to Chlor.	57-12-5	0.0394		0.0100	0.00500

Sample #: L12010651-03	PrePrep Method: N/A		Instrument: UV-120-1V		
Client ID: MPL-16-0112-MSD	Prep Method: SM4500-CN-I		Prep Date: N/A		
Matrix: Water	Analytical Method: SM4500-CN-I		Cal Date: 01/30/2012 15:00		
Workgroup #: WG388302	Analyst: DLP		Run Date: 01/30/2012 18:00		
Collect Date: 01/24/2012 14:20	Dilution: 1		File ID: 1V.1201301800-11		
Sample Tag: D01	Units: mg/L				
Analyte	CAS #	Result	Qual	LOQ	LOD
Cyanide, Weak/Dissociable	57-12-5	0.218		0.0100	0.00500

Sample #: L12010651-03		PrePrep Method: N/A		Instrument: YSI-32		
Client ID: MPL-16-0112-MSD		Prep Method: 120.1		Prep Date: N/A		
Matrix: Water		Analytical Method: 120.1		Cal Date:		
Workgroup #: WG388141		Analyst: DLP		Run Date: 01/27/2012 11:20		
Collect Date: 01/24/2012 14:20		Dilution: 1		File ID: 32.1201271120-09		
Sample Tag:		Units: umhos/cm				
Analyte		CAS #	Result	Qual	LOQ	LOD
Conductivity			497		1.00	0.500

Certificate of Analysis

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: ORION-710A1
Client ID: MPL-16-0112-MSD	Prep Method: SM4500-F-C	Prep Date: N/A
Matrix: Water	Analytical Method: SM4500-F-C	Cal Date:
Workgroup #: WG388474	Analyst: DIH	Run Date: 02/01/2012 10:45
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: O112020113430101
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Fluoride	16984-48-8	0.620		0.100	0.0500

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-MSD	Prep Method: 350.1	Prep Date: N/A
Matrix: Water	Analytical Method: 350.1	Cal Date: 01/27/2012 11:48
Workgroup #: WG388059	Analyst: DIH	Run Date: 01/27/2012 12:11
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: SC120127002.033
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrogen, Ammonia	7664-41-7	0.920		0.100	0.0500

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: SMARTCHEM
Client ID: MPL-16-0112-MSD	Prep Method: 353.2	Prep Date: N/A
Matrix: Water	Analytical Method: 353.2	Cal Date: 01/30/2012 09:15
Workgroup #: WG388287	Analyst: DIH	Run Date: 01/30/2012 14:40
Collect Date: 01/24/2012 14:20	Dilution: 4	File ID: SC12013112372401
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Nitrate-Nitrite (as N)		4.92		0.200	0.100

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: UV-120-1V
Client ID: MPL-16-0112-MSD	Prep Method: SM4500-P-E-20th	Prep Date: N/A
Matrix: Water	Analytical Method: SM4500-P-E-20th	Cal Date: 12/21/2011 14:35
Workgroup #: WG387929	Analyst: HJR	Run Date: 01/25/2012 12:45
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: 1V.1201251245-11
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Orthophosphate	14265-44-2	0.406		0.0500	0.0250

Certificate of Analysis

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: OVEN
Client ID: MPL-16-0112-MSD	Prep Method: 160.1/SM2540C	Prep Date: N/A
Matrix: Water	Analytical Method: 160.1	Cal Date:
Workgroup #: WG388025	Analyst: HJR	Run Date: 01/27/2012 13:33
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: EN.1201271333-06
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Dissolved Solids		804		20.0	10.0

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: TOC-VWP
Client ID: MPL-16-0112-MSD	Prep Method: 415.1	Prep Date: N/A
Matrix: Water	Analytical Method: 415.1	Cal Date: 12/06/2011 09:40
Workgroup #: WG388050	Analyst: DIH	Run Date: 01/26/2012 22:50
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: TC01262012.021
Sample Tag: 01	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Organic Carbon		10.3		1.00	0.500

Sample #: L12010651-03	PrePrep Method: N/A	Instrument: OVEN
Client ID: MPL-16-0112-MSD	Prep Method: 160.2/SM2540D	Prep Date: N/A
Matrix: Water	Analytical Method: 160.2	Cal Date:
Workgroup #: WG388022	Analyst: HJR	Run Date: 01/26/2012 14:57
Collect Date: 01/24/2012 14:20	Dilution: 1	File ID: EN.1201261457-18
Sample Tag:	Units: mg/L	

Analyte	CAS #	Result	Qual	LOQ	LOD
Total Suspended Solids		28.5		5.00	2.50

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
February 8, 2012

ADC - ANTHONY D. CANTER	AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN
ALV - AMY L. VALENTINE	AML - TONY M. LONG	AZH - AFTER HOURS
BLG - BRENDA L. GREENWALT	BRG - BRENDA R. GREGORY	CAA - CASSIE A. AUGENSTEIN
CAF - CHERYL A. FLOWERS	CEB - CHAD E. BARNES	CLC - CHRYS L. CRAWFORD
CLS - CARA L. STRICKLER	CLW - CHARISSA L. WINTERS	CPD - CHAD P. DAVIS
CS - CODY M. STRAHLER	CSH - CHRIS S. HILL	DDE - DEBRA D. ELLIOTT
DEV - DAVID E. VANDENBERG	DGB - DOUGLAS G. BUTCHER	DHG - DEBORAH H. GRIFFITHS
DIH - DEANNA I. HESSON	DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH	DSM - DAVID S. MOSSOR	ECL - ERIC C. LAWSON
EDL - ERIN D. LONG	ERP - ERIN R. PORTER	FJB - FRANCES J. BOLDEN
HAV - HEMA VILASAGAR	HJR - HOLLY J. REED	JAL - JOHN A. LENT
JBK - JEREMY B. KINNEY	JDH - JUSTIN D. HESSON	JKS - JANE K. SCHAAD
JLL - JOHN L. LENT	JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES
JYH - JI Y. HU	KEB - KATIE E. BARNES	KHR - KIM H. RHODES
KRA - KATHY R. ALBERTSON	LKN - LINDA K. NEDEFF	LSB - LESLIE S. BUCINA
MDA - MIKE D. ALBERTSON	MDC - MIKE D. COCHRAN	MES - MARY E. SCHILLING
MMB - MAREN M. BEERY	MRT - MICHELLE R. TAYLOR	MSW - MATT S. WILSON
PDM - PIERCE D. MORRIS	PWD - PAUL W. DENT	RAH - ROY A. HALSTEAD
REK - BOB E. KYER	RLB - BOB BUCHANAN	RLK - ROBIN L. KLINGER
RWC - RODNEY W. CAMPBELL	SJP - SUZANNE J. PAUGH	SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF	TIP - TAE I. PARRISH	TMB - TIFFANY M. BAILEY
TMM - TAMMY M. MORRIS	VC - VICKI COLLIER	WJB - WILL J. BEASLEY
WTD - WADE T. DELONG		

Qualkey: DOD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	The reported result is associated with a contaminated method blank.
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration; sample matrix interference.
J	Estimated value ; the analyte concentration was greater than the highest standard
J	Estimated value ; the analyte concentration was less than the LOQ.
J	The reported result is an estimated value.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Nontarget analyte; the analyte is a tentatively identified compound (TIC) by GC/MS
NA	Not applicable
ND	Not detected at or above the reporting limit (RL).
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Analyte was not detected. The concentration is below the reported LOD.
UJ	Undetected; the analyte was analyzed for, but not detected.
UQ	Undetected; the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

***Special Notes for Organic Analytes



1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.



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Microbac

CHAIN-OF-CUSTODY RECORD

[illegible]

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Internal Chain of Custody Report

Login: L12010651

Account: 3005

Project: 3005.011

Samples: 3

Due Date: 03-FEB-2012

Samplenum **Container ID** **Products**
L12010651-01 931500 300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	25-JAN-2012 13:17	JBK	RLK	
3	STORE	SEM	A1	03-FEB-2012 11:29	RLK	JBK	

Samplenum **Container ID** **Products**
L12010651-01 931501 ALK ALK-B ALK-C

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	30-JAN-2012 08:01	DIH	JKS	
3	STORE	WET	A1	02-FEB-2012 07:37	AZH	DIH	

Samplenum **Container ID** **Products**
L12010651-01 931502 COND COR-PH PO4 F

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	L1	25-JAN-2012 12:16	RLK		
2	ANALYZ	L1	WET	25-JAN-2012 13:49	TMM	RLK	
3	STORE	WET	A1	30-JAN-2012 08:11	JKS	DLP	

Samplenum **Container ID** **Products**
L12010651-01 931503 TDS TSS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	26-JAN-2012 08:58	HJR	RLK	
3	STORE	WET	A1	31-JAN-2012 08:51	RLK	HJR	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12010651

Account: 3005

Project: 3005.011

Samples: 3

Due Date: 03-FEB-2012

Samplenum **Container ID** **Products**
L12010651-01 931504 NH3 NO3NO2 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		<2
2	ANALYZ	W1	WET	26-JAN-2012 08:14	DLP	JKS	
3	STORE	WET	A1	02-FEB-2012 07:37	AZH	DIH	

Samplenum **Container ID** **Products**
L12010651-01 931505 AG-MS AS-MS BA-MS BE-AX CA CD-MS CO-MS CR-MS (

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	DIG	25-JAN-2012 14:17	ERP	RLK	
3	STORE	DIG	A1	27-JAN-2012 12:31	RLK	ERP	

Samplenum **Container ID** **Products**
L12010651-01 931506 CN CN-A CN-WD

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	26-JAN-2012 09:25	JBK	RLK	
3	STORE	WET	A1	01-FEB-2012 08:50	RLK	JBK	

Samplenum **Container ID** **Products**
L12010651-02 931507 300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	25-JAN-2012 13:17	JBK	RLK	
3	STORE	SEM	A1	03-FEB-2012 11:19	RLK	JBK	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12010651

Account: 3005

Project: 3005.011

Samples: 3

Due Date: 03-FEB-2012

Samplenum **Container ID** **Products**
L12010651-02 931508 ALK ALK-B ALK-C

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	30-JAN-2012 08:01	DIH	JKS	
3	STORE	WET	A1	02-FEB-2012 07:37	AZH	DIH	

Samplenum **Container ID** **Products**
L12010651-02 931509 COND COR-PH PO4 F

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	L1	25-JAN-2012 12:16	RLK		
2	ANALYZ	L1	WET	25-JAN-2012 13:49	TMM	RLK	
3	STORE	WET	A1	30-JAN-2012 08:12	JKS	DLP	

Samplenum **Container ID** **Products**
L12010651-02 931510 TDS TSS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	26-JAN-2012 08:58	HJR	RLK	
3	STORE	WET	A1	31-JAN-2012 08:51	RLK	HJR	

Samplenum **Container ID** **Products**
L12010651-02 931511 NH3 NO3NO2 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		<2
2	ANALYZ	W1	WET	26-JAN-2012 08:14	DLP	JKS	
3	STORE	WET	A1	02-FEB-2012 07:37	AZH	DIH	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12010651

Account: 3005

Project: 3005.011

Samples: 3

Due Date: 03-FEB-2012

Samplenum **Container ID** **Products**
L12010651-02 931512 AG-MS AS-MS BA-MS BE-AX CA CD-MS CO-MS CR-MS C

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	DIG	25-JAN-2012 14:17	ERP	RLK	
3	STORE	DIG	A1	27-JAN-2012 12:31	RLK	ERP	

Samplenum **Container ID** **Products**
L12010651-02 931513 CN CN-A CN-WD

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	26-JAN-2012 09:25	JBK	RLK	
3	STORE	WET	A1	01-FEB-2012 08:50	RLK	JBK	

Samplenum **Container ID** **Products**
L12010651-03 931514 300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	25-JAN-2012 13:18	JBK	RLK	
3	STORE	SEM	A1	03-FEB-2012 11:19	RLK	JBK	

Samplenum **Container ID** **Products**
L12010651-03 931515 ALK-C ALK ALK-B

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	30-JAN-2012 08:01	DIH	JKS	
3	STORE	WET	A1	02-FEB-2012 07:37	AZH	DIH	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

Login: L12010651

Account: 3005

Project: 3005.011

Samples: 3

Due Date: 03-FEB-2012

Samplenum **Container ID** **Products**
L12010651-03 931516 COND COR-PH PO4 F

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	L1	25-JAN-2012 12:16	RLK		
2	ANALYZ	L1	WET	25-JAN-2012 13:49	TMM	RLK	
3	STORE	WET	A1	30-JAN-2012 08:11	JKS	DLP	

Samplenum **Container ID** **Products**
L12010651-03 931517 TDS TSS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	26-JAN-2012 08:58	HJR	RLK	
3	STORE	WET	A1	31-JAN-2012 08:52	RLK	HJR	

Samplenum **Container ID** **Products**
L12010651-03 931518 NH3 NO3NO2 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		<2
2	ANALYZ	W1	WET	26-JAN-2012 08:14	DLP	JKS	
3	STORE	WET	A1	02-FEB-2012 07:37	AZH	DIH	

Samplenum **Container ID** **Products**
L12010651-03 931519 AS-MS BA-MS BE-AX CA CD-MS AG-MS CO-MS CR-MS C

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	DIG	25-JAN-2012 14:17	ERP	RLK	
3	STORE	DIG	A1	27-JAN-2012 12:31	RLK	ERP	

Samplenum **Container ID** **Products**
L12010651-03 931520 CN CN-A CN-WD

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	25-JAN-2012 12:16	RLK		
2	ANALYZ	W1	WET	26-JAN-2012 09:25	JBK	RLK	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

